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Women's changing productive practices, gender relations and identities in fishing through a critical feminisation perspective

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ABSTRACT

In recent years there has been increased academic and policy attention to the important contributions of women in fishing families, communities and industries. Whilst it is important to make visible these contributions, there has been little attention to how women's different and changing roles and practices are associated with (un) changed gender relations shaping, and being shaped by, women's (fishing) identities in different ways. To attend to this gap, the paper reviews and critically re-interprets literature on women's changing practices in fishing. The review is conceptually framed by drawing on – and going beyond – the feminisation approach developed in research on agriculture – incorporating key criticisms of the feminisation concept from other research fields. By reviewing and re-interpreting the literature on women in fishing through this critical feminisation approach, the intention is to examine how women's productive practices are associated with particular and changing gender relations and identities. In doing so, the paper identifies gaps in research and suggests avenues for future empirical, theoretical and methodological research on women in fishing. In terms of future directions for empirical research, the paper suggests there is a need for more research on women's practices going under the labels of 'progressive' and 'reconstitutive' feminisation. Further, and more importantly, the paper proposes new directions for future research focusing on women's subjectivities and identities as well as their working conditions. The paper also argues there is a need for relational approaches as well as more in-depth and emplaced empirical research on women's messy everyday lives to gain understandings of women's lives 'in their own right' in varying socio-spatial contexts.

1. Introduction

Since the 1980s we have seen a growing interest in the role that women play in fishing families, communities and industries. This body of work highlights the 'invisible' but significant contributions of women in sustaining fishing families, communities and industries in many places (Frangoudes and Gerrard, 2018; Zhao et al., 2013). Much of this work stems from a desire to challenge the common misconception that fishing – often narrowly understood as those practices which takes place at sea – is a male domain, with Weeratunge et al. (2010, p. 406) suggesting that "[f]isheries employment itself begins to look like a female sphere if you account for the roles of gleaning, trading, processing and fish farming". Others go further in suggesting that not only women's paid employment but also their unpaid – yet productive – practices contribute to sustaining fishing families over time (Gustavsson and Riley, 2018; Zhao et al., 2013). Although research on women in fishing has increasingly documented the multiple (re)productive roles that women in fishing practice around the world, comparatively little research has analysed what women's changed contributions to fishing mean to these women – and, associated with this, how gender relations and identities are renegotiated with, and (re)shaped by, changing roles and practices.

The argument that women's lives have to be understood from women's own perspective is however not new. In the context of fishing, Weeratunge and Snyder (2010) argue that women's own perspective on how they value their own roles and identities in fishing is often overlooked. Whilst research often pays attention to the identities of men (as 'fisher-men' or 'good fishers' (e.g. Gustavsson et al., 2017)) much less research has taken an identity perspective to understanding women's lives in fishing families and beyond. Echoing this argument, Weeratunge and Snyder (2010, p. 1) noted that "while men often take pride in their identity as fishers, it is not clear which identities are important to women." Extending this, Salmi and Sonck-Rautio (2018) suggest that women's knowledge is often ignored in research and policy. To take seriously this omission of women's perspectives, this paper will explore how women's identities have been made sense of within existing

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literature on women in fishing. Importantly, Thompson (1985, p. 18) argued – already in the 80s – that: "Neither the mere absence of men nor a vital economic role necessarily brings women increased independence or standing [in fishing families and communities]". This points to the important observation that examining women's lives in fishing – from their own perspectives – need to go beyond the immediate economic context and to stress the socio-cultural and political contexts in which gender relations and women's identities and positions are embedded and placed.

To explore what women's changing fishing practices mean to their identities and gender relations in fishing, the review is conceptually framed by a critical feminisation approach. This draws on the five categories of feminisation developed in research on agriculture (Barberis, 1972; Byrne et al., 2015; Inhetveen and Schmitt, 2004; Ventura, 1994) as well as a critical analysis of the feminisation concept in other research fields. The feminisation approach in agriculture has been a useful and distinct way in which to understand the broad range of practices that women perform in farming families alongside an understanding of how women's productive activities shape, and are shaped by, varying gender norms and relations. This is arguably useful as the review of the women in fishing literature demonstrates that there is a longstanding parallel literature in fishing that has sought to understand the feminisation of fishing – without necessarily using the vocabulary of feminisation. However, a systematic analysis of this literature has, to date, been missing. Drawing on conceptual insights of feminisation in agriculture will therefore be useful in synthesising this extensive research on women in fishing. Yet, whilst organising the review of the literature around the five categories of feminisation helps to synthesis collective knowledge, the feminisation concept has attracted some criticisms. It has particularly been argued that feminisation tends to be conceptualised as historically blind, essentialist, a-spatial and that it takes a binary approach to gender, amongst others. To avoid reproducing some of these conceptual shortcomings, which will be discussed in depth below, the paper extends the femininisation approach in agriculture to incorporate these points of criticism in reviewing the literature. By conceptually framing the review around a critical analysis of the five analytical categories of feminisation, and by demonstrating how some of the key criticisms of feminisation manifest themselves in studies of women in fishing, the review takes the feminisation concept further in developing a critical feminisation approach.

So in reviewing the literature using the critical feminisation approach the paper has two aims. First, the paper aims to develop a more systematic understanding of feminisation in fishing which enables an understanding of women's varying and changing roles and practices and how this (re)shape gender relations and identities. Second, through developing conceptual and empirical insights in the review, the paper aims to highlight new empirical, conceptual and methodological directions to be taken forward in future research on women in fishing. These aims will be achieved by using a narrative review approach (Grant et al., 2009) of varied literature from cases around the world. The narrative review cannot be exhaustive, rather specific literature is discussed to illustrate how research on women in fishing families can be situated within, and re-interpreted through, the critical feminisation approach. This literature was identified through ongoing engagement with debates on women in fishing, extensive online searches on relevant databases (e.g. Google scholar), library searches,[1] as well as following citations in identified papers and books. After introducing the conceptual foci, the paper will review and re-interpret previous studies on women in fishing through the critical feminisation approach, moving onto a discussion of emergent themes and conceptual insights as well as how this can inform future research.

[1] including the fisheries social science collection at Memorial University and the Centre for Newfoundland Studies.

2. The critical feminisation approach

2.1. Feminisation in agriculture: five analytical categories

Research within rural studies has observed, documented and theorised femininisation of agriculture in various different geographical contexts. Whilst feminisation in agriculture was originally seen as stemming from the increase of women in farming in absolute terms (Barberis, 1972), more recent authors see femininisation occurring within micro-geographies such as feminisation of farm property (Byrne et al., 2015; Heggem, 2014), agricultural management (Brauw et al., 2013) and gainful employment within farming families (Almås and Haugen, 1991). Drawing on the work of Barberis (1972) and Cernea (1978), Inhetveen and Schmitt (2004, p. 85) review the literature on femininisation in agriculture and conclude that "feminisation of agriculture does not necessarily lead to an improved situation for women. Rather women's role plurality can lead to demands on their time and efforts that are too taxing" highlighting the need to understand the diverse meanings of women's changed practices in the context of farming families – an argument which is also valid for the context of fishing. The five analytical categories of feminisation in agriculture are: i) substitutive, ii) integrative, iii) competitive, iv) progressive and v) reconstitutive feminisation (see Table 1) as I examine below.

As early as in 1972 Barberis defined feminisation as having three main forms: i) "*substitution* (taking over activities because economic development allows men to disdain them)" ii) "*integration* (when women do work ostensibly considered traditional for their sex)", and iii) "*competition* (when women vie with men for equal employment opportunities and in all aspects of social and political life)" (Inhetveen and Schmitt, 2004, p. 84). According to Barberis (1972; as cited in Inhetveen and Schmitt, 2004), examples of substitution could be found on farms that went from full-time to part-time work as women's involvement increased as men took up full-time off-farm employment. Competitive feminisation, where women competed with the traditional male position of being a farmer, could however only be observed to a small degree. Importantly, Inhetveen and Schmitt (2004) suggest that feminisation processes cannot be generalised as they are time, place and space specific and have to be explored in its socio-spatial context.

Extending the work of Barberis (1972), Ventura (1994, p. 86) suggested that there is also *progressive* feminisation in which women "go beyond a simple imitating of the male pattern or the traditional pattern in which women either depend on men or replace them". Although Ventura (1994) uses the word 'progressive' feminisation, I am not suggesting that this form of feminisation is more advanced or better than any of the other analytical categories laid out in the feminisation approach. According to Inhetveen and Schmitt (2004) progressive feminisation takes on three main forms. First, is when women farm

Table 1
The five analytical categories of femininisation as developed in research on agriculture.

Forms of feminisation		Author
Substitution	Women taking over activities because economic development allows men to disdain them	Barberis (1972)
Integration	Women undertake work ostensibly considered traditional for their sex	Barberis (1972)
Competition	Women vie with men for equal employment opportunities and in all aspects of social and political life	Barberis (1972)
Progressive	Women go beyond a simple imitating of the male pattern or the traditional pattern in which women either depend on men or replace them	Ventura (1994)
Reconstitutive	Partnerships with spouses emerges as important legal and opportunity structures to enable women to express their own occupational identities. This requires ideological adjustment from spouses and family members	Byrne et al. (2015)

managers, who could for example be owners of land, tended to think in new ways about farm management. Second, is where female entrepreneurs convert traditional household activities into market activities, such as in the case of agro-tourism, processing and direct sales (Ventura, 1994) as well as cafés on farms. Third, is where women are gainfully employed in off-farm work (Almås and Haugen, 1991) creating a feminisation of income generation to the farming family.

More recently Byrne et al. (2015, p. 128) suggest adding an additional concept – *reconstitutive* feminisation – to the feminisation approach which they define as: "partnerships with spouses emerging as important legal and opportunity structures to enable women to express their own occupational identities, which requires ideological adjustment from spouses and family members". Reconstitutive feminisation requires change at both the level of the self and the social – stressing, on a first note, how farmwomen "empower themselves in the context of the family farm to become credible candidates for the occupational category of the farmer"[2] (Byrne et al., 2015, p. 130), and on a second note, how spouses (often men) need to support this process through adjusting their own identities. Emphasis is particularly placed on how women use their agency to ensure their own personal and economic welfare alongside the sustainability of the family farm in negotiations with male partners or fathers. Importantly, Byrne et al. (2015', p. 128) found that these women and families drew on the "ideological resources of equal opportunities" in positioning themselves as farmers.

2.2. Developing a critical approach to feminisation

Despite the apparent strength of the feminisation approach in understanding broader changes in women's participation in specific parts of agriculture – and how these are associated with (un)changed gender identities and relations – it has attracted criticism. In this section I will attend to some of the key criticisms of feminisation which allows me to develop a stronger and more critical conceptual approach to be used in reviewing the literature on women in fishing.

Whilst the term feminisation has taken on a particular meaning within studies of agriculture – in the five analytical categories of feminisation, within broader studies of gendered participation in work the term is often used to describe the changing nature of work, and in particular women's increased participation. This broader body of work understands feminisation in two distinct ways with feminisation occurring when i) women take up work that they previously did not do and, ii) when work conditions are 'feminised'– that is becoming more insecure, precarious and flexible (McDowell, 2009). As a *first* point of criticism of the feminisation concept, feminisation has been critiqued for being historically blind in that it often disregards the invisible and undocumented labour women have performed in the past.[3] To avoid this issue, the current paper understands feminisation as comprised of ongoing changing practices.

The *second*, interrelated, criticism of feminisation relates to the assumption that feminisation is taking place when the number of women increases in a particular workspace. Drawing on the debate on feminisation in education in the UK, Skelton (2002) argues that in professions, such a schooling, where the number of female teachers is a majority, this majority of women does not necessarily create a 'feminised' environment. Instead, Skelton (2002, p. 92 emphasis in original) finds that "adopting a somewhat simplistic and naïve interpretation of gender as something constructed along stereotypical lines, and located exclusively in male and female bodies inhibits understanding of how [in her study] primary *schooling* is becoming more *masculinised*". Skelton (2002) findings are echoed by studies on the 'feminisation of poverty' where Chant (2008, p. 176) argues that the focus on women "tends to deflect attention from men and gender relations, when it is perhaps precisely the latter which should come under greater scrutiny". By this Chant (2008) means that feminisation has tended to overlook gender relations, men and masculinities. Taking together these insights from development and educational studies, there is a clear need to move beyond essentialised and binary notions of gender in conceptualising feminisation. This argument particularly highlights the binary understanding of gender in the feminisation of agriculture approach (and, as will be highlighted in the review, is also common in research on feminisation of fishing). Whilst the focus in the current paper remains on women's changing practices in fishing, I recognise the need to attend to gendered power relations and the potential (co-)existence of processes of masculinisation in reviewing the literature on women in fishing.

In further writing about the 'feminisation of poverty', Chant (2008) identifies that there is a lack of attention to differences amongst women – such as age, ethnicity and class. Similarly, in discussing development, McIlwaine and Datta (2003) highlights the need to 'decentre' gender as the primary variable of difference – with class and age, for example, being other important social localities in framing individuals lives. McDowell (2008), amongst others, resonates this argument by highlighting the importance of attending to the concept of intersectionality in understanding the experiences and lives of women in varying geographical, spatial and social contexts. This leads me to the *third* point of criticism – that is, there is a need to recognise diversity amongst women. To address these concerns, the current paper will focus on difference and diversity amongst women in fishing. In fishing, difference amongst women have been found to vary in line with social and relational contexts – for example if women are married to a fisher (and what sort of fishing work their partners do), if they have paid employment or if they have children (Skaptadóttir, 2000, 1996) and if they are local or migrant to the area in which they work (Selby et al., 2001; Yingst and Skaptadóttir, 2018). This diversity in positions is exemplified by authors such as Munk-Madsen (2000) and Grzetic (2004) who examine the work women do on boats and Gustavsson and Riley (2018), Salmi and Sonck-Rautio (2018), and Yodanis (2000) who examine the position of women as fishermen's wives or partners. Whilst the five analytical categories of feminisation address different productive realms of fishing, the review will focus on highlighting this diversity amongst women rather than presenting women as a homogenous group.

Chant (2008) further identifies that one of the policy 'by-products' of the feminisation of poverty approach is that women tend to be seen as 'victims'. Following this thinking, the *fourth* point of criticism comes from post-structural feminist theory (e.g. Ahl and Marlow, 2012) and stipulates there is a deeper issue in that the feminisation approach sees women as victims and dependents of men – always comparing, assessing and judging women's practices and identities in relation to that of pre-existing traditional male positions. From this perspective, it could be argued that the feminisation approach fails to adequately understand women's fishing lives "in their own right". Therefore, in taking the feminisation approach to the context of fishing, the paper will move beyond comparing women's activities to male norms – arguably often defined as the 'fisherman'. To address these critiques, which are associated with a binary, disembodied and limited understanding of gender identities and relations in the feminisation approach, the current paper turns to a focus of gender identities as 'doings' (West and Zimmerman (1987, p. 126) and as performances rather than as a trait of individuals. Similarly, Judith Butler (1990, pp. 24–25) argues that gender is a *verb* (a process of doing and performing) rather than a noun (a thing that is, or an existence). Butler (1990) stresses that gender roles are unstable, fragile and can be subverted. By studying moments when gendered roles are challenged it is argued that the (un)stability of gendered roles and relations becomes visible. This perspective further allows us to highlight how everyday performance of gender identities, in particular

[2] This Byrne et al. (2015, p. 130) argue is "contingent on a number of factors, including the farm woman's agricultural skills and knowledge, her capacity for entrepreneurship, her level of property ownership, and her access to off- or on-farm income".

[3] See for example Willson (2016) on the important but forgotten role of seawomen in Icelandic fishing history.

socio-spatial contexts, are embodied processes (see Little and Leyshon, 2003).

By drawing on substantial criticisms of feminisation in framing the review of the women in fishing literature around the five analytical categories of feminisation developed in agriculture, the paper seeks to move beyond some of these conceptual shortcomings in applying a critical feminisation approach. Where relevant I will discuss how the key criticisms of feminisation discussed above manifest themselves in the literature on women in fishing. Through this review, the paper will seek to identify empirical, theoretical and methodological gaps in research on women in fishing, and, following emerging themes from the review, to recommend future avenues of research on women in fishing.

3. Feminisation in fishing from a critical feminisation perspective

The paper now turns to a critical analysis of existing literature on feminisation in fishing through the critical feminisation approach – structured around the five analytical categories of feminisation as developed in research on agriculture (see Table 1).

3.1. Substitutive feminisation

Only a few examples of substitutive feminisation have been documented within studies of fisheries. One important example is seaweed farming in Zanzibar (Tanzania) (Fröcklin et al., 2012). Seaweed farming, supported by USAID, was introduced as a development project in 1989 on the island of Unguja in the Zanzibar archipelago. According to Fröcklin (2013, p. 959) "[m]en were initially engaged in seaweed farming but as income turned out to be very low in relation to workload, most men left the activity and returned to fishing". In 2012, 90 percent of the seaweed farmers in Zanzibar were women and many of them had incomes below the extreme poverty line. Fröcklin et al. (2012) found that these women suffered from health issues such as fatigue, pains, respiratory issue and eye problems associated with seaweed farming activities. Whilst the case of seaweed farming in Zanzibar is an example of substitutive feminisation in which women took over activities disdained by men, this perspective does not help us in understanding if, and how, gender relations have changed as the authors do not discuss the process of feminisation. Further, the authors do not discuss what being a 'seaweed farmer' means to these women beyond the context of the economy and their health impacts – thus arguably presenting women as victims in this context. Additionally, this type of research – and the category of substitutive feminisation in itself – tend to present a binary and essentialised view of gender which limit our understanding of how change to gender identities and relation can occur.

Whilst it is challenging to identify forms of substitutive feminisation in the literature on fisheries, processes of masculinisation has been more frequently observed. In their research on the octopus fishery on the Tanzanian island; Songosongo, Porter et al. (2008), for example, found that women who traditionally had used traps to capture octopus partly for household consumption – which was one of the few fisheries culturally available to them – became displaced as men took over when the octopus fishery increased in profitability. By drawing on men's gendered position and identity as 'breadwinners', Porter et al. (2008) argue that men felt entitled to displace the women from their traditional practices – thus demonstrating how gendered power relations operated in this context. Whilst masculinisation and substitutive feminisation are very different processes, it could be argued that the gendered power dynamics are similar in that men have agency and women substitute or move. What this work highlights is that more research could fruitfully explore how such power imbalances can be disrupted and that such research would benefit from moving beyond a binary view of gender in exploring how gender identities and performances (re)produce particular power relations amongst women and men in particular contexts.

3.2. Integrative feminisation

Women's economic activities which go under the label of integrative feminisation – that is they are in line with pre-existing gender norms and roles and often do not challenge traditional gender hierarchies and relations – are commonly documented within research on fishing families and communities in diverse geographical contexts. In a study of fisheries in Brittany, Frangoudes and Keromnes (2008, p. 268) found that women performed many administrative tasks (often unpaid) to support family based fishing enterprises – however, they argue "administrative tasks are conducted from home and often become indistinguishable from general housekeeping". The theme of women's fisheries work being seen as an extension of their household role is commonly discussed in the literature. In one of the earlier studies of women in fisheries in Northern Norway, Gerrard (1983, p. 226), argues that women hold multifarious and flexible roles in fishing households which function as a "buffer" to the fishing households and industry – by which she means women have adapted the extent of their contributions according to seasonally and temporally contingent needs of fishing enterprises and families. In European settler communities in Newfoundland, studies reveal, it was common for women to work in the salt fishery – salting fish on the wharf after men had landed their catches. Women's direct contribution to the fishery were often part of the household economy and it has been argued that women's work was seen as an extension of men's work and their role as wives (Antler, 1976; Porter, 1985). In these examples, women's involvements were slotted in within existing gender norms and did not overtly challenge them – this could therefore be considered examples of integrative femininisation – although in a historical context. Furthermore, we note the importance of *family* in that women's (and arguably also men's (see Gustavsson and Riley, 2020)) practices and identities become entangled within the familial context, a theme which will be expanded on below.

Previous research has found that spatiality is an important element to women's productive practices as women's mobility is often portrayed as being constrained in relation to their responsibilities in the home. In Sierra Leone, for example, women in fishing families work close to or inside the home as they can combine reproductive and productive work (Thorpe et al., 2014). Another example is seaweed farming and gleaning in Zanzibar where women's productive tasks was found to take place in inshore areas in proximity to, and closer to, the home, in contrast to men who use areas further from shore for their fishing activities (Börjesson, 2012; de la Torre-Castro et al., 2017). Santos (2015) found similar patterns of spatiality in women's work in her studies of small-scale fisheries in Brazil. She also found that men often engaged in offshore fisheries work whilst women extracted shellfish from near-shore habitats or prepared shrimp for the market enabling them to simultaneously care for their children. Important to integrative feminisation is that women's productive involvement in fisheries conforms to existing gender roles – often meaning that their work fits in with the rhythms of their domestic responsibilities associated with localised gendered moralities and notions around mothering. In order to avoid reproducing some of the issues identified in the feminisation approach, it is important that women's mothering roles are not essentialised. Instead, there is a need to view these relations as emergent gendered experiences present in a particular local context.

In addition to women's work often being embedded within the context of fishing families, many authors argue that even when women are paid for their work, their positions are often 'precarious' (after Strauss, 2018) – highlighting the common conceptualisation of feminisation as feminisation of work conditions (e.g. McDowell, 2009). In Sierra Leone, for example, women dominate post-harvesting and retailing – the former receiving substantially lower pay than fishing activities performed by men (Thorpe et al., 2014). The authors of this research therefore suggest there is a feminisation of poverty in this context (Thorpe et al., 2014). In Mexico, women are working throughout the value chain "with the seafood industry relying heavily on temporary

part-time, and low cost processing labour provided by women" (Salazar and Castañeda, 2002; as cited in Harper et al., 2017, p. 94). A number of studies have further identified the importance of women's paid work in processing plants in countries around the North Atlantic (Power, 2000; Skaptadóttir, 2000; Skaptadóttir and Rafnsdöttir, 2000; Yingst and Skaptadóttir, 2018). Power (2000, p. 202), in her study in Newfoundland, found that women in processing plants tended to have a lower seniority than men who work in the same plants and argued that this was associated with their responsibility of work in the home as well as the socially constructed "sexual divisions of labour". This perspective highlights that gender is a social construct – moving us beyond an essentialised notion of what it means to be a woman and a man. Incomes in processing plants were often low and, in the case of Iceland, local men commonly worked in processing in the capacity as managers or supervisors – the remaining workers were local women or foreign workers (Rafnsdöttir and Skaptadóttir, 1997; Skaptadóttir and Rafnsdöttir, 2000) – demonstrating how local men (and their masculinities) were positioned above 'other' (foreign) men and women in the gendered hierarchy of power relations. Skaptadóttir and Rafnsdöttir (2000, p. 10) further argues that within this distinct gender division and hierarchy in Icelandic fish plants, men's work was more highly regarded:

> "This can be seen when the pattern is broken, as in the pride women evince when they perform men's jobs. By contrast, when men perform work defined as feminine, they talk about it as a humiliating experience. It is more common to find women doing jobs defined as men's jobs than the opposite".

This argument was also highlighted by Skaptadóttir (1996, p. 278) who found that fish processing work is "looked down upon" in Iceland as it is perceived as unskilled, monotonous and "boring". Another important layer is that men in Skaptadóttir (1996, p. 282) study often said they would find working in these freezer processing plants "humiliating […] and would rather be unemployed" – in part because it was conceived of as women's work. From the perspective of Skaptadóttir and Rafnsdöttir (2000, p. 15), gender equality could only be improved with "increased knowledge and consciousness about how we produce and reproduce gender in the workplace" echoing Pettersen and Solbakken (1998) notion of conscientisation as a condition for women's empowerment, highlighting the close relationships between knowledge, identities and practice – and how these are gendered. Studies discussed here range from viewing gender as essentialised binary categories to social constructs – with the latter having the potential to challenge traditional gender relations by highlighting how these are continuously (re)produce in a given social context and, thus, (re)negotiable.

Integrative feminisation is arguably the most common form of femininisation documented in fisheries. This is most likely because women's fishing practices are embedded within traditional gendered contexts. It is important, however, to note how forms of feminisation fail to challenge pre-existing (gendered) norms and relations, often leading to women working under precarious conditions in fisheries. As Harper et al. (2017, p. 92) argue a "reason that women's work in fisheries is overlooked is that it is often unpaid, informal, part-time, or simply considered an extension of women's household responsibilities". Maneschy and Álvares (2005) further this argument by suggesting that in addition to an increasing number of women in fishing sectors in Brazil, employment has become more flexible and less secure. They argue that "[w]omen are often called upon to "solve the crisis" by taking up part-time occupations, being sub-contracted or working in other people's households where they are eligible for few, if any, of the social rights achieved decades ago" (Maneschy and Álvares, 2005, p. 62).

The literature reviewed here seems to echo the wider debate around the precariousness of female coded employment – that is, bad pay, insecure work contracts and low status (see e. g McDowell, 2009). Whilst integrative forms of feminisation can be valued by women themselves by giving meaning and a sense of purpose to life – with Britton (2012) finding that women derived a sense of wellbeing from their independence in fishing families – there are plenty of examples in the literature in which fishing policies have ignored these dimensions altogether (Neis et al., 2013). It could even be argued that governments have often relied on women's resilience building – 'buffering'– practices without recognising them as fisheries workers with the rights that this form of recognition would entail.

3.3. Competitive feminisation

Many authors have highlighted that men commonly occupy positions on-board fishing vessels (Nadel-Klein and Davis, 1988). For these men, successfully operating boats and gear at sea – displaying the qualities of being able to work with the sea to catch fish – is associated with symbolic capital development underpinning the, arguable masculine, identity of a 'fisher[man]' (Gustavsson and Riley, 2020; Power, 2005; Waitt and Hartig, 2005). This further allows male fishers access to social networks of other men at sea. These social networks, it has been argued, have the purpose of securing the safety of fishers on an unpredictable and dangerous sea (Gustavsson et al., 2017). It is often noted, however, that women rarely fish at sea (Nadel-Klein and Davis, 1988) – in particular in a capacity in which they are competing with the position of being a fisher[man] (see Grzetic, 2004). Binkley (2005) highlights that it is even more unusual for women to fish off-shore as well as occupy the prestigious position of being a 'skipper'. Studies in Norway (Munk--Madsen, 2000) and Atlantic Canada (Binkley, 2005; Grzetic, 2004) have presented examples of when women enter the, arguably male-dominated, space of fishing boats. These studies suggest that women's entry onto boats can be seen as a household strategy during harsh times – in particular following Atlantic fishing crises of the 1990s. In their studies, partners or wives of fishers worked as crew alongside their husband/partner skippers enabling the households to keep incomes within the family as opposed to employing (more expensive) non-kin crew. Although she found that gender relations and identities were renegotiated to some extent in these 'husband-wife' enterprises, Grzetic (2004, p. 39) argues that this was often out of necessity rather than by choice. Furthermore, it was still important for the men in her study "to be *seen* to be in control" of the boat and the fishing enterprise reinforcing their (gendered) positions. The literature reviewed here goes beyond an essentialised understanding of women in exploring how their lives have changed over time. Yet, the feminisation perspective here tends to highlight aspects of women's vulnerability and how they are inferior to men.

In the context of the inshore Icelandic fishery, Willson (2014) however found that women saw their entry into the inshore fishery as an 'active choice'. The women in her study said fishing was a "natural extension of being on boats since childhood [… and] it works well with their family commitments because they come back to shore each evening" (Willson, 2014, p. 544). Frangoudes (2011, p. 103) adds to this discussion by arguing that in European Union fisheries women most often work on coastal boats operated by couples which "gives the opportunity for flexible working hours which may be combined with childcare". What these studies reveal is that when women do fish on boats, they do not necessarily compete with the (often prestigious) position of men on fishing boats. That is, women are not necessarily copying the way in which men have traditionally performed the identity and practices associated with being a good fisher when they enter the space of the boat. Instead women's on-boat – and at sea – fishing work intersects with their identities as mothers and their mothering practices. This perspective highlights that women on fishing boats are potentially forging new subject positions for themselves as fishers *and* mothers. These findings resonate with Pini (2005) study of women leaders in Australian agriculture and her argument that women in leadership positions in agriculture develop new subject positions which she terms the 'Third Sex'. By this she means that these women are subjected to both the identities of 'agricultural leaders' and 'woman'. This, Pini (2005)

argues, presents challenges to do with negotiations between the prevailing 'managerial masculinity' and 'normative femininity' in their context – identity work which men are spared from. In this review, I note that women often have to negotiate their fishing work identities with that of being a 'woman' (as well as a 'mother') similar to what Pini (2005) terms a 'Third Sex'. Returning to a focus on how feminisation is conceptualised, I argue that a focus on competitive feminisation in reviewing the literature on women in fishing demonstrates the need to move beyond understanding women as victims – to understand their agency in performing their own identities albeit within gendered (powerful) socio-spatial contexts. These diverse and geographically variable gendered experiences deserve to be explored further within future empirical research on women in fishing.

At the same time it is important to recognise that women's entry into the space of fishing boats has not happened without resistance. In Newfoundland, for example, Grzetic (2004, p. 15) observed that women's work on fishing boats is associated with "stigma and suspicion" as their onboard fishing work gives them access to Employment Insurance (EI) – that is, guaranteed state supported income in the non-fishing season if they do fishing work for a sufficient number of weeks during the fishing season. In her study, Grzetic (2004, p. 15) found that locals in the community monitored women's working pattern as there were rumours about women abusing the EI system– that is, women registering as active fishers to claim EI when they actually never went to sea. Her study found that this stigmatisation of women's fisheries work negatively affected their health and "women are under increasing pressure to go fishing and to be *seen* going fishing by those in government, the fishing industry and their communities" (Grzetic, 2004, p. 59). Important to note here is that women's traditional roles as 'shore crew' (e.g. Porter, 1995) did not make them eligible for EI. Although Grzetic (2004) does not use the concept of feminisation in her study, the resistance to women's on-boat fishing work observed in her work could be seen as a negative response to the increased feminisation of fishing work at sea. Grzetic (2004) study suggested that, as women are perceived to be in competition with men within the community, other local men and women sometimes seek to de-legitimise women who do fish. This sort of work highlights how both men and women 'do' gender by holding others to account for what is considered gender 'deviant' behaviour (see West and Zimmerman, 2009). By attending to such perspectives, it is possible to develop more nuanced understandings of how gender relations change or remain unchanged.

The literature also observed the opposite process to competitive feminisation following economic crises associated with changing fishing policies and cuts to fishing quotas. In a self-biography by two women who fished for squid in Newfoundland, Burt and Burt (1985, p. 239) wrote:

> "… But when I bought the nets they cut the quota! […] I didn't put any nets out, because it was only a small quota and the men wouldn't appreciate the women at the herring when there's only a small quota".

The phenomena that women who fished at sea submitted their work to that of the men's in times of change was also echoed by studies of the Icelandic fishery. Willson (2014) observed that whilst women's involvement in the offshore fishery of Iceland increased after the 70s, it declined after the financial crisis of 2008. After the financial crisis, men returned from their banking (or other) jobs to fishing, 'squeezing out' many women who had previously worked in the fishery leading to a decrease of women in, in particular, the larger scale offshore fishery. Whilst women had previously been active and largely accepted in the fishery, now they were seen as "taking the 'men's' jobs" (Willson, 2014, p. 543). The examples discussed above present situations in which women could be said to 'compete' with male fishers – but not on equal terms nor necessarily with the same goals and motivations. There is plenty of evidence across geographical localities in the Global North of women being socially accepted as fishers when economic conditions are good. With changing conditions, however, men's position and right to the fishery is prioritised and women are squeezed out – highlighting how hierarchical gendered power relations in fishing largely remain unchanged in these contexts.

The wider significance of the literature reviewed above is that women are at some level perceived to be 'competing' with the traditional 'male' positions – but not on equal terms nor necessarily with the same goals and motivations. At the same time, and more importantly, the literature reveals that many women are not necessarily replicating the traditional male norm of 'being a fisher' but are developing new and varied identities and performances in relation to what it means to be a sea going fisher person. This can be seen, in particular, in relation to women's mothering and family oriented (gendered) identities and performances which highlight the need to examine women fishers "in their own right" –by not simply comparing and judging them according to traditional male fishing norms. As such, there is a need for more studies of women in fisheries using a post-structural feminist approach to make sense of how women are fishing, their motivations for doing so and what it means to them (e.g. Ahl and Marlow, 2012).

3.4. *'Progressive' feminisation*

In her study of Italian agriculture, Ventura (1994) observed three forms of 'progressive feminisation': i) changing business farm management ii) female entrepreneurs converting household activities into market activities and iii) feminisation of gainful employment. These themes resonate with the issues identified in existing research on fishing and will be discussed in turn below.

3.4.1. *Alternative business management?*

An important issue highlighted in the literature on women in fishing is ownership of property. Studies of fisheries in Newfoundland and Norway have stressed that women rarely own fishing property such as boats, licenses and equipment (Munk-Madsen, 1998). Gerrard (2008), in a study of the introduction of the quota system in the Northern Norwegian fishery, found that women have been further marginalised by the quota regime as property has become 'cemented' in the hands of men. The literature review however identifies a few studies which focus on women who are running fishing businesses. In a recent study of the Norwegian fishery, Pettersen (2019, p. 11) found that structural change over the last decade, has developed into "new ways of organising business activities" which has changed traditional relationships between businesses, household and families (cf Pettersen, 2000). These changes mainly took place within larger scale fishing and aquaculture businesses where household and businesses were formally separated. For these enterprises, Pettersen (2019, p. 11) suggests that the transition from small family businesses to larger companies has increased the number of jobs in administration which, she argues, may give women new working opportunities. Additionally, Pettersen (2019, p. 11) argues that organising businesses "as shareholding companies can give women better access to formal economic rights than more informal ownership arrangements". Importantly Pettersen (2019, pp. 7–8) highlights that women have not been passive in these transitions into shareholder enterprises, suggesting that "women's wishes for increased security contribute also to changes in practices and organisations in the fisheries, towards professionalisation and modernisation". This suggests that women are part of driving a change 'from household to shareholding' structures where women's roles in fishing enterprises become more formalised. Traditional forms of (household) organisation were, nevertheless, still present within small-scale fishing businesses in Norway suggesting that different models of organisation co-exist – highlighting the need to be specific about different forms of spatialised gender relations, even within the same national context. Whilst women as business owners is a form of 'progressive feminisation' that has been described in Norwegian, there is much less research in other

geographical localities investigating if and how businesses change when non-traditional actors (such as women) increasingly become managers and owners of fishing companies. Furthermore, such studies need to examine what these new positions, practices and work arrangements mean to the women involved in terms of how gender relations and identities are renegotiated.

3.4.2. Diversification, innovation and women's entrepreneurship

The literature also reveals examples of women participating and driving the 'diversification' (Pettersen, 2000, p. 84) of fishing businesses. For example, Frangoudes and Keromnes (2008) found that some wives of artisanal small-scale fishers in Brittany (France) engaged in 'direct sales' of fishing products (for more than 40 h per week) which improved the value of the catch and gave larger incomes to the family. Other examples of diversification have been documented in Iceland where Skaptadóttir (2000) found, through studying women's adaptive strategies in a fishing community, that some women had turned to production of handicraft to supplement their incomes. The materials for the handicrafts made were usually locally sourced (such as fish skin, woodcarvings and quilts) and marketed as such. The wider significance of this, Skaptadóttir (2000, p. 319) argue, was that "[t]hey are making new things, sold for much higher prices, to make extra income for themselves, thus, linking home and work in a new way". These observations echo Ventura (1994, p. 90) concept of 'female entrepreneurs' who are defined as those who "try to give a new meaning to their close relationship with their own local traditions and cultural roots". Studies in Japan are taking these ideas further by exploring how women's entrepreneurship can enable locally traditional eating practices to sustain over time with changing markets. Soejima and Makino (2018) found that wives of male fishers distribute fish to the wider community enabling local people to cook and eat fish varieties that would otherwise not be bought and sold through larger retailers. They also found that women in Japan are beginning to be organised in women fisheries entrepreneurship groups, such as the Sanmi Sea Mothers, whose main objective is to promote the eating of fish and adding value to fish catches (Soejima and Makino, 2018). These women entrepreneurs diversified production within the family businesses as a means to resist larger changes to how fish is sold and consumed nationally.

Recent work has also examined women's entrepreneurial roles in fishing families in the Global South. In their study of a Lake Victorian fishing community in Tanzania Onyango and Jentoft (2011) surveyed a women's community organisation who through collective organisation initiated a number of activities such as small-scale trade, a fishing operation using hired crew, a nursing school, a water transportation company and planted trees in their community. Without using the vocabulary of feminisation, the authors suggest that the women went beyond the traditional male pattern in their community venturing into new areas to support the lives of themselves, their families and community – such as collectively organising childcare. The literature search also identified several development projects that encourage women's 'innovation' in fishing families and communities. For example, by studying a USAID funded project, Fröcklin et al. (2018) observe that small-scale innovations such as shell handicraft to be sold to tourists had been successful in improving women's access to resources, self-confidence and decision-making authority within the household for some women in fishing communities in Zanzibar, Tanzania. The women who participated in the handicraft programme had opened up a new market from which fishing families could make a living and as such this could arguably be seen as 'progressive' feminisation.

Whilst diversification, innovation and entrepreneurship are often cited as avenues to improve the economic situation of fishing families, relatively little research has explored women's roles and doings in relation to these practices. The review here reveals there is empirical scope to better understand the diversity of women's innovative activities in varying geographical contexts as well as how these practices shape and are shaped by gender relations and identities. Important here is that women should not be assumed to be victims as studies on women's diversification reveal how women's situated agencies are often driving forces behind these new practices.

3.4.3. Gainful employment

A further way in which progressive feminisation can be identified in fishing families, similar to Salmi (2005) idea of 'pluriactivity', is through feminisation of gainful employment in families. In a study of household strategies in Nova Scotian fisheries after the fisheries crisis in 1992, Binkley (2005, p. 75) studied how women negotiate their involvement with the fishing enterprise with broader responsibilities such as domestic and wage work. Binkley (2005) found that financial pressures on the fishing enterprises stemming from the fishing crisis has increased women's participation in non-fishing employment. In this context, Binkley (2005) views women's wage work as an extension of the fishing household in that they subsidise the fishing enterprise during times of financial hardship. In the case of women's non-fishing employment, previous studies have noted that their work becomes positioned within the wider discourse of the family enterprise. Similarly, Grzetic (2004, p. 16) notes in her study in Newfoundland that "fishing families depend on women's labour and income in order to survive. […] The second income into fishing households, which often comes from women's work, literally raises the family out of poverty." When interpreting this from a feminisation perspective we can identify elements of both integrative forms and progressive forms of feminisation – highlighting that the categorical thinking embodied in the feminisation approach developed in agriculture is messier than is portrayed in the literature. Nevertheless, the literature review reveals different understandings of the meaning of non-fishing work to women with, on the one hand, Gustavsson and Riley (2018) arguing that paid work amongst women in fishing families of North Wales was associated with professional identities beyond the context of fishing – providing them with a sense of independence. On the other hand, Britton (2012, p. 16) found, through attending to women's experiences in Northern Ireland, that women in fishing families often had an ambiguous relation to paid work as "despite job satisfaction being linked with self-actualisation and independent income, it is an area of life that can also cause increased pressure for women who feel they have no choice but to work due to a lack of income from fishing." Taken together, it can be noted that engaging in non-fisheries employment has multiple and sometimes contradictory meanings for women in fishing families. Nevertheless, Shortall's (2014, p. 68) observation in her study of women's identity and wellbeing in farm families becomes important here: "[w]hile [off-farm work] is not overtly gender deviant work, such as driving tractors, it does compromise the male breadwinner identity". Whilst the review here has not explicitly attended to the gendered identities and practices of fishing men – such perspectives highlight that it is important to do so to make sense of the wider impact women's non-fishing employment have in the lives of fishing families and associated gender identities.

As discussed above, progressive feminisation can be a mix of agency and constraints – or what Inhetveen and Schmitt (2004, p. 95) calls a "last resort [… rather] than as a freely developed decision"– shaping women' position and identities in fishing families in varying ways. Although Inhetveen and Schmitt's perspective arguably victimises women, at the same time, Pettersen (2019) study highlights how women's agency comes into play when they go beyond the traditional male norm of what a fishery is and should be. I will return to how to make sense of these diverse interpretations in future studies of women in fishing in the conclusion.

3.5. Reconstitutive femininisation?

The literature reveals no clear example in which reconstitutive feminisation has been documented in studies of the fishing industry and fishing families. There are only few examples focusing explicitly on women who occupy the occupational identity of the 'fisher' (see Willson,

2016) and even fewer focusing on how women use agency in negotiations with male fishing partners or fathers to enable their entry into the category of the fisher. There is a clear need for future research to investigate how women can be fishers 'in their own right' – following the argument of Byrne et al. (2015) – and how men can adjust their identities to support and enable this process within the context of fishing families and beyond. Whilst changing fathering moralities where men may take more responsibilities for caring for children (see Gustavsson and Riley, 2020) may be one avenue previously explored, there remains many unexplored areas in the fishing context. For example, exploring how women negotiate their entrepreneurial activities with male fishing partners could be one avenue in taking this sort of analysis further (see Locke et al., 2017 who has furthered these discussions).

A few studies, nevertheless, reflect upon how legal structure can enable women to receive recognition for their work within fishing families – beyond those practices taking place at sea. In France, for example, women married to fishers can acquire the legally recognised status of a 'collaborative spouse' which entitle them to maternity and retirement benefits (Frangoudes and Keromnes, 2008). The authors found that (male) fishers had to apply for this status on behalf of their wives which resulted in that some men supported their wives' legal position as a collaborative spouse whilst other men did not. Whilst research to date does not explore how women negotiate this with their partners, there is scope to expand this research agenda. Furthermore, Pettersen (2019) study of women's agency in formalising their roles in fishing family enterprises by becoming shareholders is an example of the ways in which women use their agency to change their lives as well as the lives of their family business. Whilst their study opens up new ways of how to consider women's agency in fishing, the scope could be expanded to explore how women and men negotiate their gender identities and relations in line with these changes. Generally speaking, there is a gap in the literature on how women use their agency to pursue their own (occupational) identities in fishing families, communities and industries and how this in turn potentially (re)shapes fishing practices and economies.

4. Future directions for research on women's fishing lives

Drawing on the critical feminisation approach in reviewing the literature on women's changing involvement in productive practices has helped to synthesise, as well as identify important gaps in, collective knowledge around the feminisation of fishing and how gender relations and identities change (or not) with changes to women's productive practices. It has allowed us to look beyond the often-male dominated traditional position of the 'fisherman' to incorporate a wide range of productive activities in how we understand the 'fishery'. By identifying these 'other' productive activities it has opened up areas for future empirical research. In particular, the review notes that practices that go under the labels of progressive and reconstitutive feminisation need more research – with work being either geographically limited or not extensive enough. Conceptually framing the review around a critical feminisation approach, which incorporated key criticisms from fields beyond agriculture, has also helped to identify four theoretical and methodological gaps in existing research which will be discussed below.

4.1. Methodological focus on the messiness of everyday lives

In structuring the review of the literature on women in fishing around the analytical categories of feminisation, we note that these categories are overlapping and messy. Whilst the paper finds that the analytical categories of feminisation is a good starting point to initiate a conversation around the different forms of work, roles and practices that women do in fishing – and how the 'fishery' can be re-defined to recognise a broad set of economic practices within fishing families – a critical perspective highlights that we still need to understand what these mean to the women involved. In a study of women's sense of farming in Vermont, US, Abatemarco (2019, p. 13) argues for the importance of empirical work in seeking to understanding women's values, farming and mothering practices and notes: "[t]he tensions that emerge in their narratives show the unavoidable messiness of lived experience when it encounters idealized theory". Drawing on Abatemarco (2019) it is here argued that empirical work on fishing should embrace this messiness rather than challenge it by seeking to analyse it in neat categories. The argument here is both methodological as well as theoretical and it is underpinned by the need to attend to women's varied and situated everyday lives and experiences in fishing families and the 'fishery'. In particular, research on women in fishing could benefit from exploring more recent feminist theoretical approaches such as new materialism (Truman, 2019) and assemblage theory (Kinkaid, 2019) which present opportunities to 'hold' these accounts of women's messy everyday lives. Whilst reviewing the literature on women in fishing through the critical feminisation approach has arguably opened up for new considerations of women's fishing lives – in previously empirically understudied areas – I would argue that only by developing nuanced and complex accounts of women's messy fishing lives can we avoid reproducing "gender and intergenerationally-blind" (Neis et al., 2013, p. 10) impacts in how fishing policies are formulated.

4.2. Attending to women's subjectivities and intersectional identities

Returning to the discussion about the need to understand women's lives 'in their own right', I suggest there is a need for future research to focus on women's subjectivities and identities – moving beyond seeing women as victims (cf Chant, 2008) and dependants of men. The review particularly highlights how women have either been conceptualised as being deprived of agency – or – having agency. Instead, a more sophisticated understanding of gender relations is needed which enable a more complicated understanding that women simultaneously have agency although it is embedded within a particular context meaning that their agency can be constrained in that context (Coe and Jordhus-Lier, 2011).

In relation to these suggestions, the review identified some important themes worthy of more research. In particular, when analysing women's work through the critical feminisation approach, it is revealed that women's fishing practices – be those categorised as integrative, competitive or progressive – often become negotiated with the needs of children and family to an extent which has not been observed for fishing men (for a discussion of fishing men's fathering practices see Gustavsson and Riley, 2020). This gendering of parental practices and identities is certainly not unique to the context of fishing families – nor for the case of rural primary industries (Brandth, 2016) – but we can see here that the rhythms of fishing (e.g. whether, tides, seasons, fish availability, economic changes, policies and markets) often become central to the workings of these families. The wider significance here is that women's (gendered) fishing identities – in addition to being constructed relationally to that of men's – intersect with other identities – in particular those of 'mothers' – producing multiple and intersecting identities and performances, shaping what women do, the way in which they do fishing practices, and the reasons why they engage in this type of work. The implication of this is that women's multiple intersecting identities and embodied performances inform and shape the work they do in fishing – resulting in them sometimes renegotiating what it means to be a 'fisher' or 'fisher-man' or a 'mother' when they take up fishing work. The suggestion here is therefore to explore women (and men's) fishing lives from an intersectional perspective. Such work can however go further in paying more attention to differences (such as age, class, ethnicity etc) amongst women in fishing (see for example Selby et al., 2001; Yingst and Skaptadóttir, 2018). Yet, as argued earlier, there is also a need to go beyond an essentialised understanding of gender – and what it means to be a mother (for example) – to focus research on women's own perspectives of these subjectivities and identities and how they shape, and reshape, gender relations in particular socio-spatial contexts.

Significantly the paper notes that women's gender identities are often portrayed as very stable in the context of research on fisheries. Yet returning to Butler (1990) perspectives it is arguable important to highlight the fragility and instability of the gendering of practice, identities and relations and future research could benefit from placing more attention on these challenges. More broadly, further research is needed to explore what women's varying and changing fishing practices, as identified and highlighted by the critical feminisation approach, may mean to women. Weeratunge and Snyder (2010, p. 5) raise an important aspect here:

> "In promoting gender equity in the fisheries sector, it should not be assumed that all women want to become fishers. […] We know very little about identity construction processes among women in fishing communities."

If, for example, women who perform fishing practices do not identify as 'fishers' in their communities, can they achieve other identities or positions of recognition – and, if so, how? Alternatively, can the occupational identity and position of the 'fisher' become more inclusive and also include other forms of fishing practice and bodies? These are questions which yet need to be explored in more depth in future studies in varying geographical localities.

4.3. The importance of relational and contextualised approaches

Whilst the review takes on literature from across the world, it is important to note that gender relations and identities are placed (and changed) in particular geographical, spatial and temporal contexts. This necessitates, as argued before in relation to women's mothering roles, the need to move beyond an essentialised (binary) conceptualisation of gender which assume what women do, how they are positioned in relation to men, and views women as a homogenous group. To do so, there is a need for relational approaches in future research on women in fishing that seek to understand women's lives as situated in particular and varying relational contexts. In particular I suggest for future research to engage feminist approaches such as relationality and place in seeking to understand situated empirical questions that concern women's fishing lives.

Although I do not seek to generalise, one relational context which was reoccurring throughout the literature review was the importance of the 'family' and how women's fishing lives unfold in relation to the life of the family. The review reveals that the work women (and men) are doing in fishing is often motivated by a desire to secure the future of their families. Here we see that although this could mean taking up various different roles (traditional and non-traditional; integrative or 'progressive') women's increased contributions in securing the continuation and wellbeing of the family can sometimes have costs to women's individual wellbeing (see Coulthard, 2012). These observations highlight the importance of considering the family as an analytical unit in the context of fishing work (see Kelly and Shortall, 2002 for agriculture) with Edwards et al. (2012, p. 743) arguing for:

> "the analytical strengths of family in transcending a concern with individual actors and their identities and relationships, to identify collective fusions within and across generations – however ambivalent and oppressive these may be".

The review has stressed this ambivalent relationship between women as individuals and women as part of families with their family identities and practices sometimes taking precedence over, or shaping and adjusting, their individual work identities and practices. Little research has, however, examined the intergenerational dimension of women's lives in fishing families (with Porter, 1988 and important exception) as well as the position of daughters in these families. The review also highlights the complex merging of women's economic contributions with the 'family' business. This observation raises a number of important empirical and conceptual questions around who owns 'family businesses', who has access and legal rights to the fishery as well as social security and retirement (if such systems exist in the first place), what happens in the case of divorce (see Haugen et al., 2014) and how are these processes gendered and made sense of within the context of fishing families. At the same time, Gustavsson and Riley (2018) have noted that women can be powerful within the context of fishing families – being 'hidden decision-makers' in fishing enterprises – resulting in a blurring of productive and domestic/reproductive roles in fishing families. Drawing on Gerrard (1983) argument that women's 'buffering' (or resilience building) capacity has not necessarily been visible to those outside of the immediate family and community contexts, there is a need to interrogate how women's fishing work (within families) are recognised at different scales. Gerrard (1983) argues that women's fishing work is only observable at the local level, yet fishing policies are often formulated at the national level. Because of these findings, it could be argued that key to making sense of women's fishing lives – and how fishing policies could better support women in the industry – is to gain an understanding of the relationship between individual women and their families in the day to day workings of fishing families.

Whilst the analytical unit of the family emerges as important in many studies of women in fishing, there may very well be cases, contexts and places in which the family is not relevant. For example, no study known to me explore women fishers who fish independently of families – although almost certainly such relational contexts do exist. The suggestion here is that, whilst the family has been important in work on women in fishing to date, there is equally a need to go beyond the family to explore other empirical and relational realities. A further important point to make here is that most studies on women (and men) in fishing assume heterosexuality (see Little and Leyshon, 2003 on a similar argument for rural studies more widely). Instead, taking a relational approach to research on women in fishing, which do not make prior assumptions about peoples' lives, has the potential to produce novel, more 'real' and insightful accounts of women's (men and children's) fishing lives.

4.4. Women's working conditions

The review has highlighted the need to explore the working conditions of women in fishing industries as it reveals a sort of feminisation of work – that is precarity, unpredictability and flexible contracts, associated with 'female coded' employment in fishing industries. Whilst women's productive activities in fishing families and beyond can be both paid and unpaid (although economic contributions could have significance to families as discussed above) more academic and policy work needs to consider the 'precarity' (e.g. Strauss, 2018) of women in fishing industries – in relation to for example working conditions, ownership and access to social security. Perhaps not so surprisingly, the literature reveals that as economic conditions change in fishing – both in the past and in the present, to the better or the worse – women's opportunities and (gendered) positions within the fishery change too. Rather than there being a continuous progress towards gender equity – with equal opportunities, studies (for example in Iceland (Willson, 2014)) have seen women's participation in and access to fisheries decreased as women have increasingly been considered as unsuitable, unfit, or un-rightful fishers in line with economic downturns. Such insights reveal that whilst economic necessity might change what people actually do, it may not lead to changing culture and changing gender identities and relations highlighting the need to consider the underlying assumptions and beliefs that construct work as masculine and feminine. That is, if underlying belief and knowledge do not change it may be more likely that women are considered unsuitable as fishers when economic conditions change. In addition to how work is socially constructed however, Neis et al. (2013) have argued for the importance of considering the state and how fishing policies are formulated around assumptions of what constitutes fishing work and fishing workers. They

argue that the 'gender blindness' of fishing policies reinforced traditional gendered positions, and (unintentionally) excluded women from fisheries work. It further excluded women from compensation for the economic costs associated with a restructuring of the fishing industry which took place following a 'crisis' in fish availability. Echoing these ideas, the argument here is that we need to consider women's working conditions in fishing industries and ideas around precariousness could help to inform such work with formulation of fishing policies being central to these discussions.

5. Conclusion

This paper begun by suggesting there is a gap in knowledge around how women's changing fishing roles and practices are associated with (re)shaped gendered relations and identities. To address this gap the paper drew on a critical feminisation approach developed by integrating the feminisation approach developed in agriculture with key criticisms of the feminisation concept in other research fields. By critically re-interpreting the literature on women in fishing through this conceptual approach, the paper highlights a broad range of fishing practices that women perform in fishing families and economies, stressing the need to include these varied productive practices in mainstream definition of what is meant by a 'fishery'. The feminisation approach also helped to make visible the different meanings and identities which productive practices could take on for women in fishing families – and how changing practices shaped and reshaped gender relations and identities. The paper further identifies empirical, theorical and methodological gaps in current scholarly understanding. In terms of empirical gaps, the paper suggests that more research could expand on practices labelled as progressive feminisation as these, whilst being suggested as a possible avenue for growing and sustaining fishing economies (see Kirwan et al., 2018 for England), have been relatively under-researched – in particular in relation to women's practices. In terms of theoretical and methodological gaps, reviewing the literature on women in fishing in this way helped to highlight four avenues for future research. These are: i) a need to methodologically attend to the messiness of women's everyday lives and practices in fishing families, ii) more research on women's subjectivities and intersectional identities as the review reveals the socio-cultural dimensions of women's fishing lives have been underexplored, iii) a need to draw on relational approaches to examining women's fishing lives – focusing, for example, research on the relational context of the family, and iv) examining women's working conditions as previous research stress the precarity of women's employment within the fishing sector. By revealing empirical gaps in knowledge and suggesting these four approaches to be taken forward in future research, the paper seek to take the field of research on women's fishing lives forward by moving beyond documenting women's vulnerability to understanding women's fishing lives in their own right.

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Data access statement

This study did not generate any new data.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.jrurstud.2020.06.006.

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